

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A heat exchanger comprising:
an air flow structure that has a top surface, a bottom surface, a width, a length, a first edge that runs along the width, a second edge that runs along the width, a plurality of first grooves in the top surface, and a plurality of second grooves in the bottom surface, the first and second grooves extending along the length between the first and second edges, ~~a groove having a substantially uniform width from the first edge to the second edge;~~
a first wall connected to the air flow structure that contacts substantially all of the first edge of the air flow structure, the first wall having a plurality of openings that extend through the first wall such that each opening is surrounded by the first wall, no portion of the first wall extending into the plurality of first grooves, the first wall preventing a fluid in the first grooves from flowing past the first edge, the plurality of openings allowing a fluid in the second grooves to flow past the first edge; and
a second wall connected to the air flow structure that contacts substantially all of the second edge of the air flow structure, the second wall having a plurality of openings that extend through the second wall such that each opening in the second wall is surrounded by the second wall, no portion of the second wall extending into the plurality of first grooves, the second wall preventing a fluid in the second grooves from flowing past the second edge, the plurality of openings in the second wall allowing a fluid in the first grooves to flow past the second edge.
2. (Currently Amended) The heat exchanger of claim 1 wherein the first wall is connected to the first edge via an adhesive.
3. (Original) The heat exchanger of claim 1 and further comprising a first plate formed adjacent to the top surface, the first plate contacting the first wall,

the first plate having a first opening and a second opening spaced apart from the first opening, the first opening exposing portions of the first grooves.

4. (Original) The heat exchanger of claim 3 wherein the first plate contacts the top surface.

5. (Currently Amended) The heat exchanger of claim 2 wherein the second wall is connected to the second edge via an adhesive.

6. (Original) The heat exchanger of claim 3 and further comprising a second plate formed adjacent to the bottom surface, the second plate contacting the second wall, the second plate having a third opening and a fourth opening spaced apart from the third opening, the third opening exposing portions of the second grooves.

7. (Original) The heat exchanger of claim 6 wherein the second plate contacts the bottom surface.

8. (Original) The heat exchanger of claim 6 wherein the second plate includes a base section and sidewalls that extend perpendicularly away from the base section.

9. (Original) The heat exchanger of claim 8 and further comprising a first air flow generator connected to the second plate adjacent to the second opening, the first air flow generator causing air to follow a path through the first opening along the first grooves and through the second opening.

10. (Original) The heat exchanger of claim 8 and further comprising a first air flow generator connected to the first plate adjacent to the second opening,

the first air flow generator causing air to follow a path through the first opening along the first grooves and through the second opening.

11. (Original) The heat exchanger of claim 9 and further comprising a second air flow generator connected to the first plate adjacent to the fourth opening, the second air flow generator causing air to follow a path through the third opening along the second grooves and through the fourth opening.

12. (Original) The heat exchanger of claim 9 and further comprising a second air flow generator connected to the second plate adjacent to the fourth opening, the second air flow generator causing air to follow a path through the third opening along the second grooves and through the fourth opening.

13. (Original) The heat exchanger of claim 1 wherein a first groove and a second groove share a section of the structure.

14. (Original) The heat exchanger of claim 1 wherein the first wall includes plastic.

15. (Currently Amended) The heat exchanger of claim ~~15~~ 14 wherein the second wall includes plastic.

16. (Currently Amended) A method of forming a heat exchanger, the method comprising ~~the steps of:~~

forming an air flow structure that has a top surface, a bottom surface, a width, a length, a first edge that runs along the width, a second edge that runs along the width, a plurality of first grooves in the top surface, and a plurality of second grooves in the bottom surface, the first and second grooves extending along the length between the first and second edges, each groove having a substantially uniform width from the first edge to the second edge; and

forming a first wall ~~having a plurality of openings that contacts substantially all of the first edge of the air flow structure, the first wall having a plurality of openings that extend through the first wall such that each opening is surrounded by the first wall, no portion of the first wall extending into the plurality of first grooves, the first wall preventing a fluid in the first grooves from flowing past the first edge, the plurality of openings allowing a fluid in the second grooves to flow past the first edge; and~~

connecting the first wall to the first edge of the air flow structure.

17. (Currently Amended) The method of claim 16 and further comprising ~~the steps of:~~

~~forming a second wall having a plurality of openings that contacts substantially all of the second edge of the air flow structure, the second wall having a plurality of openings that extend through the second wall such that each opening in the second wall is surrounded by the second wall, no portion of the second wall extending into the plurality of first grooves, the second wall preventing a fluid in the second grooves from flowing past the second edge, the plurality of openings in the second wall allowing a fluid in the first grooves to flow past the second edge; and~~

connecting the second wall to the second edge of the air flow structure.

18. (Original) The method of claim 16 wherein the first wall is adhesively connected to the air flow structure.

19. (Original) The method of claim 17 wherein the second wall is adhesively connected to the air flow structure.